

REMARKS

Applicant respectfully requests reconsideration of the present application and the consideration of the following remarks.

Claims 3-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sloan (U.S. Patent 5,928,324) in view of Rosen (U.S. Patent 5,995,102). Claims 9-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sloan and Rosen and further in view of Deo (U.S. Patent 6,282,294). Applicant respectfully disagrees.

New dependent claims 33-35 are currently added. Thus, claims 3-35 are currently pending.

A brief overview of Sloan is first provided below so that the teaching of Sloan may be properly compared to the claim limitations.

Sloan teaches a server for supporting X and similar software protocols (see, e.g., Col. 1, lines 9-11, of Sloan). In a traditional system, as illustrated in Figure 3 of Sloan, the X server (61) is locally connected to the device library (62), which drives the display screen (240) through the bus architecture 230. According to the X protocol, there are a number of X requests sent from the X client (10) to the X server without any effect on the output image displayed on the display screen (240) (see, e.g., Col. 5, lines 3-6, of Sloan). To avoid transmitting these requests over a slow network, Sloan separates the X server (61) and the device library (62) so that only the X requests that will affect the output image are transmitted over the network (e.g., internet) between the X server and the device library. According to Sloan (see, Figures 5 and 6), the X server (61) is placed on a server (see, server 300 in Figure 4) that has a fast connection with the X client (see, X client 10 in Figure 4); and the device library (62) is on the remote user terminal (see, terminal 310 in Figure 4). In

Sloan the HTML page (350) on the server (300) and the browser (470) on the remote terminal (310) are used to establish the communication between the X server (61) and the device library (62), which are separated by the Internet/Intranet (41).

Col. 7, lines 9-29, of Sloan shows the details of the three-tier X system. In the X system of Sloan, any X requests, from the X client (10) to the X server (300), that affect the output from the display screen (440) of the remote terminal (310) are identified by the X server and forwarded to the remote terminal (310). The HTML page (350) downloaded into the web browser (470) is a special page that contains a Java applet. After the user terminal (310) renders the HTML page in the web browser (470), the particular Java applet in the HTML page running on the user terminal (310) converts the X request to a display output, which is then converted by the device library (62) on the remote terminal (300) to drive the display screen (440). Thus, with the help of the Java applet of the HTML page (350), which is received at the web browser (470) of the remote terminal (310) from the server (300), the X requests from the application running on the X client (10) can be sent to the remote terminal for the control of the display screen using the X protocol. It is seen that in Sloan the special-purpose Java applet of the HTML page (350) facilitates the communication between the X server and the device library across the net (41).

Col. 8, lines 2-31, of Sloan shows further details of a preferred embodiment of transmitting the data for X requests. One of the X requests is a PutImage request, which involves image data. According to Sloan, the image data of the PutImage request is placed on the image server (500), instead of being directly sent to the remote terminal (310). An identifier of the image is sent to the remote terminal with the X request. The remote terminal (310) then retrieves the image from the image server (500) using the identifier to complete the transmission of the X request. In this way all users of the application (11) running on the X client (10) can access the same image on the image server (500). Thus, the images on the

image server of Sloan are the image data of X requests. These images are not web page images rendered by the server for the remote terminal in response to the requests for the web pages by the remote terminal.

Applicant respectfully submits that there is no resemblance between the system of Sloan and the invention as claimed in the pending claims. The elements of Sloan do not correspond to the elements of the pending claims. Before a detailed discussion, a belief overview of some embodiments of the present invention is provided below so that the invention as claimed in each claim can be considered as a whole.

In one embodiment of the present invention, a host computer (e.g., 1 of Figure 1 of the present application) converts the entire web page into an image (e.g., a bitmap) for the portable device (see, e.g., line 23 of page 5 to line 20 of page 6 of the present application). The web page may include information such as HTML, JAVA or other types of information retrieved from a web server. Typically, rendering a web page in high quality needs a sophisticated software program (e.g., Internet Explorer or Netscape Navigator) and a powerful processor. According to one embodiment of the present invention, the host computer renders the web page for the portable device. Thus, the portable device does not need the computational resource to render a web page in high quality.

Typically, a web page image rendered from the entire web page is larger than the display screen of the portable device. In one embodiment of the present invention, the display screen of the portable device has a portion to display a user interface image and another portion to display the web page image. The portable device displays a user interface image that resembles a typical browser user interface, including home, back, forward, stop, refresh and go buttons and an address input area (e.g., see Figure 5 of the present application). The user interface image is displayed in a fixed area of the display of the portable device. The image of the web page is displayed in another area of the display of the

portable device. When the image of the web page is scrolled on the display of the portable device, the user interface image remains fixed relative to the display of the portable device. The image of the entire web page is transmitted to the portable device so that the scrolling of the image of the web page can be performed under the exclusive control of the portable device. Thus, when the user scrolls to and from a same portion of the web page multiple times, the portion of the image rendered from the web page by the server is not sent multiple times from the server.

From the above overview, one can see that the system of Sloan is very different from the embodiments of the present invention. A detailed discussion is provided below to show that the elements of Sloan relied upon in the Office Action do not correspond to the elements recited in the pending claims.

For example, claim 3 recites:

3. (previously presented) A method to view Internet content, the method comprising:
 - displaying in a first portion of a display of a device a user interface image including one or more buttons for web browsing;
 - sending a request for a web page from the device to a remote server;
 - receiving at the device from the remote server in a compressed format a web page image, the web page image being rendered at the remote server from the entire web page which the remote server retrieves from the Internet in response to the request, the web page including text and graphics; and
 - under exclusive control of the device, selectively displaying a portion of the web page image in a second portion of the display of the device according a user input to the device while the user interface image is displayed in the first portion of the display.

For the rejection of claim 3, the Office Action relied upon item 500 of Figure 9 and lines 2-31 of Col. 8 of Sloan for the limitation of "receiving at the device from the remote server in a compressed format a web page image". However, the images in the server 500 of Figure 9 of Sloan are completely different from "the web page image being rendered at the remote server from the entire web page which the remote server retrieves from the Internet in response to the request." Note that claim 3 further specifies the limitation of "the web page including text and graphics." As discussed in the above overview of Sloan, the images on the image server 500 of Figure 9 of Sloan are the image data for the X requests in the X protocol, such as a PutImage request. The image data of X requests are generated by the application (11) running on the X client (10) to update remote display output using the X protocol (e.g., through the X server and the device library). These images cannot be considered as "the web page image being rendered at the remote server from the entire web page which the remote server retrieves from the Internet in response to the request." These images are not rendered from text and graphics of a web page requested by the remote terminal. In one embodiment of the present invention, a request for a web page is sent from a portable device to a remote server, which retrieves the web page from the Internet in response to the request and renders the entire web page into the web page image for the portable device. This is completely different from an X client sending an X request including image data to the remote terminal to update the display output on the remote terminal using the X protocol according to the application running on the X client.

The Office Action asserted that col. 8, lines 2-31, of Sloan shows that an image of a web page is generated separate of a web page. Applicant respectfully disagrees. As discussed above, the images on the image server 500 are the image data of X requests generated by the X client (10). The application program is running on the X client (10). The running application program on the X client updates the appearance of the program using X

requests with image data. These X requests are sent to the remote terminal (310) to update the display of the appearance of the application program. The remote terminal (310) gets the image data from the image server for a complete X request. The X request is originated from the X client (10), identified and forward by the server (300) and received at the remote terminal (310). The HTML page (350) is a special page containing a Java applet to facilitate the communication link between the X server and the device driver. In Sloan there is no description of the generation of an image of a web page separate from the source web page.

The Office Action asserted that Sloan is from a field of endeavor, which is how a web page is to be displayed with respect to a server. Applicant respectfully disagrees. Applicant respectfully submits that Sloan uses a web page only to facilitate the propagation of X request of X protocol. Web is only a tool in Sloan to provide a communication channel between the X server (340) and the device library (62).

Note that in Sloan the web browser (470) is a traditional web browser. It downloads a web page, such as HTML page (350) than contains a Java applet for decoding the X requests, and renders the web page on the remote user terminal (310). The remote user terminal (310) renders web page in the web browser to render the web page on the remote user terminal. There is no indication in Sloan that a server renders an entire web page, including text and graphics, into an image for the remote user terminal (310). Similarly, Rosen does not have any indication of a server that renders an entire web page, including text and graphics, into an image for the remote user terminal.

Thus, at least for the above reasons, claim 3 is patentable over the cited references. Claims 13 and 23 recite similar limitations as discussed above. As dependent claims of claims 3, 13 and 23, claims 4-12, 14-22 and 24-32 are patentable over the cited references at least for the above reasons. New claims 33-35 further recite the limitation of "loss-less."

Further, for example, claim 9 recites:

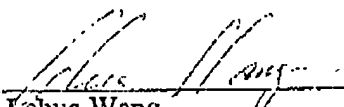
9. (previously presented) The method of claim 3, wherein the user interface image includes a keyboard icon, which when activated causes the device to display a keyboard layout on the display of the device.

Although Deo has a brief description of "The keyboard can be integrated with the display, such as when the keyboard is incorporated as a touch sensitive display", Deo (and Sloan and Rosen) does not show a specific arrangement as recited in claim 9. Claim 9 includes the limitations of "a user interface image including one or more buttons for web browsing" and "the user interface image includes a keyboard icon". Further, claim 9 specifies "a keyboard icon, which when activated causes the device to display a keyboard layout on the display of the device." The discussion of recognizing hand written characters in Deo does not correspond to displaying a keyboard layout. It is understood that recognizing hand written characters does not involve a displayed keyboard layout. Thus, Applicant respectfully submits that as a whole Deo, Sloan and Rosen do not fairly suggest the particular arrangement as recited in claim 9, in addition to the reasons of being patentable over the cited references presented above for claim 3.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666. Furthermore, if an extension is required, Applicant hereby requests such extension.

Respectfully submitted,

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